

REMARKS/DISCUSSION OF ISSUES

Claims 1-11 are pending in the application. Claims 1-11 are rejected.

Claims 1-6 and 8-11 are rejected under 35 USC 103(a) as being unpatentable over JSR Corporation (EP 1 022 318 A2) (herein 'JSR').

JSR teaches a photocatalyst coating film and a method of making coating layers containing a photocatalyst. The method includes the steps of forming: an undercoating of a coating composition composed mainly of an organosilane component (a) and a polymer component (b) having a silyl group; and an overcoating of an organosilane component (a), a photocatalyst (f) for the hydrolysis and condensation of organosilane components (a) and, if desired, a polymer component (b) having a silyl group.

JSR teaches that the component (f) is preferably selected from acidic compounds, alkali compounds, basic compounds, amine compounds and organic metallic compounds. See para. [0152].

Component (f) may also be provided as a combination of two or more substances. See para. [0162].

The organic metallic compounds include metal alkoxides.

The Examiner urges that JSR thus teaches the use of a metal alkoxide in combination with another compound which would have resulted in basic conditions.

However, JSR does not teach that a metal alkoxides should be used in conjunction with any specific one of the other listed compounds, and certainly not a particular compound which would result in basic conditions.

JSR includes both acidic and basic compounds, as well as other compounds in the list, and provides no guidance as to the selection of any one or more of these compounds over the others. Thus, one skilled in the art could just as readily select an acidic compound as a basic compound, which would be in direct conflict with Applicant's teachings and claims, which call for basic conditions.

Alternatively, one could use both acidic and basic compounds, which would result in neutral conditions, not basic conditions.

In summary, JSR simply provides a list of specific catalysts from which to chose, one of which happens to be a metal alkoxide, and the others include acidic compounds as well as basic compounds. There is absolutely no teaching or suggestion that a metal alkoxide be used under basic conditions.

Thus, it would not have been obvious to one skilled in the art to select a metal alkoxide in combination with a basic compound, or a compound capable of producing basic conditions.

In the Final Office action, the Examiner has found the above arguments to be unpersuasive because, *inter alia*, Applicant has provided no evidence to contradict the Examiner's statement that it is known in the art that the hydrolysis of metal alkoxides can be catalyzed by both acids and bases.

JSR does not support this statement. JSR merely teaches that metal alkoxides may be chosen, either alone or with an acidic or basic compound, as a catalyst for the hydrolysis and condensation of organosilane components and, if desired, a polymer component having a silyl group.

Moreover, the Examiner has cited no other prior art reference to support this statement.

Assuming however for the sake of argument that the statement were true, it would not render obvious Applicant's invention, but would actually strengthen the case for non-obviousness. Thus, the knowledge that hydrolysis-condensation reactions can be catalyzed under both acidic or basic conditions, with no preference indicated of one over the other, would make the choice of basic conditions non-obvious.

Thus, there is no need for Applicant to provide evidence to contradict this statement.

Since JSR's teachings include the use of acidic compounds as catalysts, JSR would not lead the artisan to choose basic conditions over acidic conditions.

Such basic conditions are essential to achieving a lacquer composition having acceptable properties when silica particles are present. As explained in the third paragraph on page 2 of Applicant's specification:

The benefit of the method according to the present invention especially applies for lacquer compositions to which silica particles are added in order to provide for increased strength and reduced shrinkage. As the iso-electric point of silica is 2, and therefore the silica particles are electrically neutral at pH 2, a poor stabilization of silica particles is obtained at said pH. Under more basic conditions the particles are negatively charged resulting in improved stability and reduced tendency towards flocculation. Therefore, upon curing of such basic lacquer improved packing of the particles is obtained with better properties of the final coating.

JSR teaches nothing in this regard. Thus, there is no guidance to the skilled artisan to maintain basic conditions in order to avoid flocculation of silica particles.

Accordingly, the rejection of claims 1-6 and 8-11 under 35 USC 103(a) is in error and should be withdrawn.

Claims 1-11 are rejected under 35 USC 103(a) over Philips Electronics N.V. (WO 98/22548) (herein 'Philips') in view of JSR.

Philips teaches lacquer compositions prepared by treating an organosilane compound with water in the presence of a polycarboxylic acid. See page 2, line 15.

In teaching the use of an acid catalyst, Philips is in direct conflict with Applicant's claims. Moreover, since JSR provides no guidance regarding acidic or basic or neutral conditions, the combination of Philips with JSR would lead the skilled artisan to the use of an acidic catalyst, in direct conflict with Applicant's claims.

In the Final Office action, the Examiner has stated that Applicant's arguments are unpersuasive because JSR teaches that hydrolysis-condensation reactions are catalyzed by both acids and bases, and Applicant has not shown the claimed invention to be unobvious over the teachings of the prior art.

However, where JSR teaches that catalysts may be acidic or basic or both, and thus leaves the choice of catalyst up to the skilled artisan, Philips specifically teaches the use of an acidic catalyst. Thus, without some other contrary guidance, such as hindsight from Applicant's own teachings, Philips clearly suggests the use an acidic catalyst in JSR's compositions.

Moreover, as pointed out above, Applicant's contribution to the art of lacquer compositions is that when silica particles are added to an organosilane composition, flocculation of the particles can be prevented by carrying out the reaction under basic conditions.

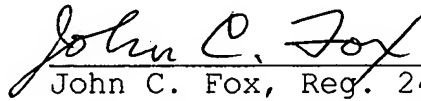
Neither JSR nor Philips in any way recognizes the problem of flocculation of silica particles in a lacquer composition,

and so neither reference teaches or suggests a solution to the problem. In fact, JSR provides no guidance regarding the selection of a catalyst, and Philips specifically teaches away from the selection of a basic catalyst.

Accordingly, the rejection of claims 1-11 under 35 USC 103(a) is in error and should be withdrawn.

In view of the foregoing arguments and amendments, Applicant urges that all of the pending claims are allowable, and respectfully requests that the Examiner withdraw the rejection of record, allow all the pending claims, and find the application to be in condition for allowance.

Respectfully submitted,

  
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